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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/821,187

04/09/2004

Sung-hee Hwang

1793.1255

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11/17/2009

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EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT

PAPER NUMBER

2627

NOTIFICATION DATE

DELIVERY MODE

11/17/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptomail@smiplaw.com

Office Action Summary	Application No. 10/821,187	Applicant(s) HWANG ET AL.	
	Examiner JORGE L. ORTIZ CRIADO	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-7,9,10,12-17,28-32,48,55,57-59,61 and 62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,9,10,12-17,28-32,48,55,57-59,61 and 62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's amendments and arguments have been considered with the following office action results.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 55 is rejected under 35 U.S.C. 102(b) as being anticipated by Ko US Patent No. 6,367,038.

Ko discloses a recording medium for use with a recording and/or reproducing apparatus comprising: a data area with respect to which data is to be recorded on the recording medium (user area), and a temporary defect management area (DMA; thru col. 1, line 42) comprising a temporary disc definition structure (DDS) (col. 6, lines 42-54) comprising information on a size of spare area and an empty temporary defect list (SDL),

It is noted that the clause “wherein the size of the spare area is determined according to a defect management mode “selectable” between a defect management on mode, in which defect management is performed to manage defects on the recording medium, and a defect management off mode, in which defect management is not performed”, provides merely for process that adds nothing to the patentability or substance of the structure of the claimed of optical recording

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medium. This clause limitation is merely for possibilities made by process drawn to a method or an apparatus performing the same.

It is only positively recited that the recording medium comprise a data area and a temporary defect management area with a temporary disc definition structure recorded with information on a size of a spare area.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 4, 5, 6, 10, 13, 14, 16, 28, 31, 48, 61 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko US. Patent Application Publication 2002/0105868 in view of Park et al. U.S. Patent No. 6,477,126 and/or further in view of Ko US Patent No. 6,367,038.

As per claim 1, Ko discloses a method of recording data on a recording medium, the method comprising: selecting a defect management mode selectable between a defect management on mode and a defect management off mode s; recording the data on the recording medium while performing defect management, when the defect management on-mode is

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selected; and recording the data on the recording medium without defect management, when the defect management off mode is selected (DM mode; see figs. 8 and 9; linear replacement management etc.).

Ko teaches that the a spare area, which is used for replacing a defective block and is allocated in a data area are allocated, according to the selected defect management mode (see [0074], Fig. 12, which shows allocation of spare areas and size (#of block; see [0078]-[0080]).

controls a pickup to record the data on the recording medium while performing defect management (i.e. linear replacement management performed) using the spare area (as inherently to and/or expressly explained by Ko that linear replacement requires use of spare area), if the defect-management-on mode is selected, and controls the pickup to record the data on the recording medium without defect management, if the defect-management-off mode is selected. (i.e. not performing linear replacement management).

Ko does not expressly discloses, control the pickup to record information on the size of the spare area in a temporary disc definition structure and “an empty temporary defect list” (interpreted as when no defect has been detected after creation) are provided in the temporary defect management area.

Although it is notoriously well known and well understood to one of an ordinary skill in the art that the disk definition structure can implies such spare area information about size in Ko disclosed DDS, Ko does not expressly recite this feature.

However, the provision of such information is well known as evidenced by by Park et al (‘126), which teaches that based on a defect management modes and after a selection between such modes the spare areas are assigned (see Fig. 5), it is well understood that assigning spare

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areas in the initialization process in Park et al. implies that the disk definition structure and management areas are written and assigned, and with the size of such spare areas (see Figures 4 and 6).

Alternatively, see Ko '038, col. 6, lines 42-54 for instance, which teaches such size information written in such disk definition structure.

It would have been obvious to one of an ordinary skill in the art to write such size information after the mode selection in the initialization process of defect management selection, for effectively and simplicity obtaining such information and quickly and reliable process of the recording/reproducing apparatus.

As per claim 4, combination above teaches that a temporary disc definition structure is arranged and changing the size of the spare area and recording information on a size of a spare area allocated in the data area after the defect management on mode is selected, on the temporary disc definition structure.

As evidenced by Park et al, which teaches that based on a defect management modes and after a selection between such modes the spare areas are assigned (see Fig. 5), it is well understood that assigning spare areas in the initialization process in Park et al. implies that the disk definition structure is written with the size of such spare areas (see Figures 4 and 6).

as evidenced by Ko '038, col. 6, lines 42-54 for instance, which teaches such size information written in such disk definition structure.

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As per claim 5, in the combination above Ko '868 further shows selection between on and off, hence comprises converting between them.

As per claim 6, it is understood and is implied in KO '868, since the RAM media, is reinitialized when rewriting the same (see [0045]-[0047]), and further discloses recording the data on the recording medium without defect management when off mode is selected, (see Figs. 8 and 9).

As per claim 10, refers to recording replacement block for replacing defective blocks in predetermined units, which in the combination above Ko '868 further discloses such units, see Fig. 7).

As per claim 13 correspond to the reproduction process of the recording operation method claim 1, and rejected for the same reasons of anticipation outlined above.

As per claims 14 and 16, it is understood in the reproduction of Ko that if management information was performed or not the same applies at the time of reproducing such information that was recorded or not, base on the on or off selection.

Apparatus claim 28 corresponds to the apparatus performing the method outlined above in claim 13, and is rejected for the same reasons of obviousness.

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Apparatus claim 31, corresponds to the apparatus performing the method outlined above in claim 14, and is rejected for the same reasons of obviousness.

Claims 48 is drawn to method and corresponding apparatus claims for recording having limitations similar to the ones treated above and are met by the reference above specified by the above combination, and rejected for the same reasons of obviousness.

Claims 61 and 62 are drawn to method and corresponding apparatus claims for recording having limitations similar to the ones treated above and are met by the reference above specified by the above combination, and rejected for the same reasons of obviousness.

Claims 7, 9, 12, 15, 17, 29-30, 32, 57, 58 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko US. Patent Application Publication 2002/0105868 in view of Park et al. U.S. Patent No. 6,477,126 and/or in combination of Ko US Patent No. 6,367,038, as outlined above and further in view of Park et al. US Patent Application Publication 20040179445.

Although Ko fails to disclose recording a finalization flag indicating the finalization of the recording medium in the temporary defect management area; recording temporary defect management information including recording finally updated information on the defect and defect management information of the temporary defect management area in a defect

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management area of the recording medium and filling with predetermined data a remaining area of the temporary defect management area where no data is recorded, as in claim 7, 9 and 12 .

This is the well known process in a write once recording media, as taught by Park et al., see ([0067]). Furthermore, it is well understood that a medium after being finalize a flag information is recorded to identify as such.

Hence, it would have been obvious to one of an ordinary skill in the art to adopt this scheme operation to cope with write once recording medium process.

As per claims 15 and 17, correspond to the reproduction operation of the recording operation as in claim 9 for instance, and is rejected for the same reason of obviousness.

Apparatus claims 29-30, and 32 are drawn to the apparatus performing method process similar to the ones in claims 9, 12 and 15 and are rejected for the same reasons of obviousness.

As per claims 57, 58 and 59 the further limitations regarding recording temporary defect management information including recording finally updated information on the defect and defect management information of the temporary defect management area in a defect management area of the recording medium limitations similar to the ones treated with respect to claims 9 or 12, are rejected for the same reasons of obviousness.

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Closing Comments/Remarks

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JORGE L. ORTIZ CRIADO whose telephone number is (571)272-7624. The examiner can normally be reached on Mon.-Fri 10:00 am- 6:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jorge L Ortiz-Criado/
Primary Examiner, Art Unit 2627